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ABSTRACT

This study investigated the impact of administrators' constructive comments to preservice teachers about their micro-teaching demonstration. The project used a research model that concentrated on cognitive changes rather than changes in behavior and that used images of growth rather than measurable changes. It attempted to facilitate reflection, personal interaction through feedback, and understanding of professional development. Two university professors collaborated to facilitate the exchange of comments written by novices learning new skills to serve as feedback to each other. The videotapes of preservice teachers' micro-lessons in the experimental group were viewed by preservice administrators who were enrolled in a graduate course in supervision. The preservice teachers became part of either the control group (n=41) or the experimental group (n=34). Two sections of the experimental group completed an open-ended questionnaire. Results indicated that preservice teachers reflected on their specific lesson when they read the comments made by the preservice administrators. They also reflected on the process of learning to teach when they responded to the open-ended questions about the comments that were made about their lesson. Preservice teachers reported an increase in their confidence to teach and in their ability to learn to teach well. An appendix contains the survey instrument. (Contains 36 references.) (JB)

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USING FEEDBACK FROM PRESERVICE ADMINISTRATORS TO PROMOTE REFLECTION IN PRESERVICE TEACHERS

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The best teachers are not "technocrats" who blindly follow established teaching practices, but thinking teachers who critically reflect on their own teaching. To develop the ability to reflect, teachers must not perceive the teaching process as simply following a recipe to produce the best practice, but as developing competent responses to the fluidity of classroom interactions. "Schemata do not automatically appear in a teacher's mind: they are constructed through experience. Individuals are constantly creating their own meaning out of what is perceived" (Sparks-Langer & Colton, 1991, p. 38). New teachers especially must be prepared to talk about responsibly teaching a diverse population, solving perplexing educational problems, and reflecting on their actions (Valli, 1992). "Viewing one's practice through another's eyes is a powerful trigger to becoming a more critically reflective practitioner" (Brookfield, 1992, p. 18).

Research on teaching has investigated the potential of using collaboration to understand teachers and their work in order to enhance the teacher's practice and improve the student's learning (Cole & Knowles, 1993). Collaboration has become a successful method for transferring theory into practice when teachers are trying to learn complex teaching skills by reducing the uncertainty novices experience in learning to teach (Berkey, Campbell, Curtis, Kirschner, Minnich, Zietlow, 1990; Ellis, 1990). By increasing the information that teachers can use to learn new skills, collaboration relies on specific, relevant and accurate feedback in making the process productive for professional development (Ellis, 1990; Ross & Regan, 1993). Collaboration that assists teachers in learning to teach by promoting reflection on practice must provide these conditions: a) specific time to participate in the reflective process, b) a safe environment

built on trust and respect, c) open-ended discussions that allow for individual concerns to surface, and d) written reports containing specific feedback that can be used for reflection (Berkey et al., 1990). Collaboration employs a distinctive relationship between evolving professionals for acquiring new concepts through the exchange of specific and meaningful information.

Professional development for teachers frequently engages collaborative projects between universities and school districts, agencies, foundations, and individual teachers, but collaboration between groups of students within a school of education is rarely reported in the literature. Collaboration is possible when courses or professional programs share similar goals. Linkages between courses or programs require strategies for successfully managing the logistics of the collaboration. This article describes the benefits of a collaborative project between preservice teachers and preservice administrators for learning skills in reflecting and teaching.

Purpose of the Study

The purpose of this study was to investigate the impact of administrators' constructive comments to preservice teachers about their micro-teaching demonstration. The following research questions were investigated. How do these comments affect the preservice teachers' reflection on action? How do these comments affect the perceptions of the preservice teachers about their abilities to teach successfully? How do these comments affect the preservice teachers' attitudes toward entering the process of supervision and professional development? How is university instruction enhanced by these possibilities?

Theoretical Framework

Definitions of Reflection

Definitions and applications of reflection on teaching have evolved over time and across emphases in educational theory while becoming a theme for many teacher education programs. In 1933 John Dewey described "reflective thought" as "active, persistent, and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it and the further conclusions to which it leads" (p. 9). Reflection has been described by Van Manen (1977) as having three levels: a) technical reflection, which evaluates the effectiveness of the teaching method, b) practical reflection, which clarifies the assumptions of the teaching method and evaluates the adequacy of the teaching goals, and c) critical reflection, which assesses the ethical and moral dimensions of the teaching method. Schon (1983) described "reflection-on-action" as thinking about past actions and decisions, but defines a reflective practitioner as one who reflects-in-action by criticizing, restructuring and testing of intuitive understandings of experienced phenomena during the actual teaching process.

Diverse interpretations of reflective teaching produce a myriad of applications in learning to teach. Four varieties of reflective teaching have been described by Zeichner and Liston (1990): a) an academic version that emphasizes effective teaching of subject knowledge for improving student learning (e.g. Shulman, 1987; b) a social efficiency version that stresses accurate application of successful teaching methods (Ross & Kyle, 1987); c) a developmentalist version that stresses teaching that is sensitive to the developmental needs of students (Duckworth, 1987); and d) a social reconstruction

version that considers the social and political health of the classroom for promoting social equity (Beyer, 1988). Gore & Zeichner (1991) argued that reflecting to improve teaching must include "critical reflection" that considers the moral and ethical implication of teaching. They also assert that preservice teachers do not need to learn reflection developmentally (ie. beginning at the technical level and maturing to the ethical level).

After considering the assorted definitions of reflective teaching and the distinct application to teacher education, this project utilizes Dewey's definition of reflection, Van Manen's first level of reflection, and the procedure of reflection described by Ross and Regan (1993) as "an individual process containing two elements: metacognitions (awareness of the strategies, theories, and feelings that underlie one's professional problem solving) and appraisals (judgments about performance)" (p. 92). These were chosen because these novice teachers need to begin to develop basic reflection skills. Other types of reflection are facilitated through classroom activities and discussions of ethical issues observed in the field experiences of these same pre-service teachers.

Benefits of Reflection

Reflection on teaching facilitates significant aims in teacher education programs. Even though preservice teachers are reluctant at first to reflect on their teaching, they enthusiastically embrace what reflection teaches them (Canning, 1991). Reflecting on action promotes intelligent teacher decision-making instead of impulsive, irrational actions. Teachers who reflect on the status quo of schooling demonstrate openmindedness (examining one's assumptions), responsibility (assessing consequences

of one's actions) and wholeheartedness (evaluating one's practices) when making difficult moral and ethical teaching decisions (Dewey, 1933). Preservice teachers who practice reflection during their early development in teaching, incorporated new information about teaching into their old schemata (Sparks-Langer & Colton, 1991; Winitzky & Arends, 1991). Learning skills in reflection provides metacognitive action useful for self-direction and professional development (Calderhead, 1989). All of these benefits support the concept that the teacher is a professional who makes decisions daily that can be life-changing for the students.

Techniques Used to Teach Reflection

Teacher educators employ numerous procedures to instruct teachers in reflective teaching. A crucial initial step in developing proficiency in reflection-on-action is acquiring the ability to identify ingredients of competent teaching (Schon, 1987). However, knowing about competent teaching is not the same as teaching competently. According to Ryle (1949) learning to teach involves two types of knowledge: knowing "that" and knowing "how". Reflecting on teaching facilitates knowing the "how" to teach. Therefore, opportunities for reflecting on practice should precede the student teaching experience to encourage learning research based methods and to reduce the student teacher's chances of imitating inadequate traditional practices (Goodman, 1986). Kottkamp (1990) catalogues the methods for developing reflection that are currently being used in preservice teacher education as: a) writing reflectively in journals, b) developing case records of teaching scenarios, and c) participating in contrived situations such as case studies, role plays, and simulations such as micro-teaching. Using

observation instruments or electronic recordings to provide specific feedback, preservice teachers can view their teaching practice through the eyes of the observers. Videotape provides the most complete feedback for the teacher to see discrepancies between their intent and their actions (Kottkamp, 1990).

In addition to acquiring proficiency in reflecting on teacher action, methods have been generated for producing competence in reflecting on one's attitudes. Auxiliary methods for promoting reflection abound in the clinical classrooms or professional development schools where preservice teachers are assisted by clinical teachers or supervisors in learning to teach (Winitzky & Arends, 1991). Griffiths and Tann (1992) argued for reflecting on personal theories about teaching so that they can be analyzed, questioned, evaluated and reconstructed according to theory evidenced in experience. In clinical supervision the observer asks specific questions to prod the teacher into thinking reflectively about the lesson just taught (Glickman, 1990). Smyth (1992) believes the purpose for clinical supervision and reflection has been to control and dominate teachers and suggests that teachers develop real reflectivity by recognizing the politics of their teaching, writing descriptions of classroom events, and constructing a personal history to uncover their assumptions and beliefs that influence teaching decisions.

Assessing Reflection

Diverse methods utilize various measures for assessing reflection on teaching. Methods for preparing teachers to be reflective must be appropriate for the pedagogical development of that teacher. For example, a novice teacher who is struggling to survive would most likely develop skills in reflecting on practice at the technical level (Lasley,

1992). Measuring the level of reflection can utilize a cognition tree that displays the complexity of the schema. A tree constructed with many branches demonstrates a complex development of the concept of teaching and skills in reflecting on teaching (Winitzky & Arends, 1991). Morine-Dershimer (1989) measured growth in reflectivity by comparing the complexity of concept maps drawn at the beginning and the end of a methods of teaching course. Griffiths & Tann (1992) assessed reflection using five levels of reflection determined by the speed and consciousness used in the cycle of teaching action, observation, analysis, evaluation and planning. Ross (1989) used the seven Stages in the Development of Reflective Judgment developed and validated by Kitchener (1977) and King (1977) to generate three levels of reflection for assessing the development of reflectivity demonstrated by preservice teachers during the semester in theory-to-practice papers. The Framework for Reflective Thinking distinguishes among seven types of language and thinking to measure the reflection preservice teachers demonstrated in interview transcripts and journals (Sparks-Langer, Simmons, Pasch, Colton & Starko, 1990). Researcher-made tests of reflectiveness are based on the assumption that reflection is evidenced through preservice teachers identifying the strengths and weaknesses of their microteaching (Winitzky & Arends, 1991).

METHODS

Because the subjects in this study are just beginning to learn the principles of teaching and reflection on teaching, this project used a research model that concentrates on cognitive changes instead of changes in behavior and uses images of growth rather than measurable changes. It attempts to facilitate reflection, personal interaction through

feedback, and understanding of professional development (see Richardson, 1990).

For this project two university professors in a school of education collaborated to facilitate the exchange of comments written by novices learning new skills to serve as feedback to each other. The videotapes of preservice teachers' micro-lessons in the experimental group were viewed by preservice administrators who were enrolled in a graduate course in supervision where the primary objective was to prepare them to become proficient in observing and evaluating teachers. The constructive feedback from the preservice administrators about the micro-teaching could provide the preservice teachers in the experimental group with valuable information about their teaching skills.

Subjects

The preservice teachers were heterogeneous for ability, age, experience, socioeconomic background and ethnicity. They were beginning their study of education, either toward certification and a baccalaureate degree or certification in addition to a previously earned degree. Without their knowledge they became a part of either the experimental group or the control group by enrolling in different sections of the course. Two sections of the course taught by different instructors comprised the control group ($n = 41$). Three sections of the course taught by two different instructors constituted the experimental group ($n = 60$). Only two sections of the experimental group completed the open-ended questionnaire ($n = 34$). One instructor taught one section in each of the groups.

In this first methods course the secondary preservice teachers in both groups learned to write lesson plans and practiced teaching their lessons to students who are

their peers. Most of the students have taught in informal settings, but have not formalized their instruction into plans that follow models of teaching to reach specific objectives. Many of them have not yet developed confidence in being before a group of students and being responsible for teaching specific concepts. The purpose of the micro-teaching activity was to begin to develop skills in teaching according to a plan to reach a pre-determined objective.

Each preservice teacher in all sections taught a micro-lesson to peers that was videotaped. Their peers recorded evaluations of the lessons using checklists and rating scales. Each preservice teacher completed open-ended questions in a self-evaluation of the lesson presentation. At the end of the semester, preservice teachers in both groups responded again to the 12 questions examining their perceptions of the process of learning to teach.

Reflection and Micro-Teaching

The preservice teachers in both groups were taught the basic principles of reflection, planning instruction, and using teaching models. Early in the course they studied reflection on teaching by reading about how to reflect (Posner, 1993), discussing the value of reflection, and writing reflectively in class activities. Before learning specific models of teaching, they learned about writing objectives, content selection, and lesson planning.

The first model of instruction that the preservice teachers learned was the direct instruction model which was demonstrated by the professor, discussed in class and observed in the schools during their field experiences. Using this model each preservice

teacher in both groups wrote and taught a micro-lesson to a small group of their classmates in a teaching lab equipped with videotape recorders. During the playback of the lesson, each teacher and the classmates who were taught evaluated each lesson by viewing the videotape, recording their observations, and sharing these observations with each other through discussion and written comments to practice reflection on teaching.

The classmates used a rating scale checklist of simple teacher behaviors such as maintaining eye contact, expressing clear objectives, and presenting their lessons in a logical sequence, etc. The self-evaluation form was prepared by the professor for the preservice teachers to guide their initial reflection on their own teaching. They were asked simple questions such as: "What are the strengths of the lesson you taught?" "What would you do differently if you taught this lesson again?" In order to begin reflecting on teaching using feedback, the preservice teacher also used the peer evaluations to complete the self-evaluation questions. Only the preservice teachers in the experimental group contributed the following documents to the preservice administrators: the micro-teaching lesson plan, self-evaluation and peer evaluations.

Treatment

The preservice administrators provided concise and specific feedback to the preservice teachers in the experimental group on their teaching through formal observation reports. After reading the reports the preservice teachers provided feedback to the preservice administrators by answering open-ended questions about the usefulness of the feedback in their learning to teach. Only the effects of the feedback from the pre-service administrators on the preservice teachers will be examined in this paper.

Exchanging Feedback Between Collaborative Groups

The diagram displays the steps in the process of exchanging information between the preservice teachers and the preservice administrators.

Preservice Teachers		Preservice Administrators
Step 1 (Time: 6 weeks) Learn model, write lesson, practice teaching, peer & self-evaluation	---------->	**Step 2** (Time: 3 weeks) View lesson on tape, practice supervision, write observation comments and suggestions
Step 3 (Time: 30 minutes) Read observation report, reflect on the teaching process, answer questions about the observations	<----------	
	---------->	**Step 4** (Time: 2 hours) Read teachers' responses to supervisory comments, reflect on the supervision process, answer questions about supervision

Step 1 - Each preservice teacher writes and teaches a micro-lesson which is videotaped. The lesson plan, self and peer-evaluations and the videotape of each teacher is given to the professor of the preservice administrators.

Step 2 - Each preservice administrator views one lesson on tape, reviews the lesson plan and evaluations, and writes an observation report for the preservice teacher. The lesson plan, evaluations, and the observation report is returned to the professor of the preservice teacher.

Step 3 - Each preservice teacher reviews the lesson plan and evaluations, and reads the observation report. Each student answers questions about the information included in the observation report. These questions and answers are given to the professor of the preservice administrators.

Step 4 - Each preservice administrator reads his or her teacher's responses to the questions about the observation report and reflects on the supervision process, and answers questions about the supervision project.

Preparing the feedback Report

Using the direct instruction model as a framework, the preservice administrators developed the observation instrument from the evaluation instrument used to assess the ten skill areas of student teachers at the end of their preparation. While viewing each teacher on videotape, the preservice administrators recorded the teaching behaviors they observed without evaluating the level of proficiency for each behavior. The skill areas included in the observation instrument were:

1. Demonstrates preparation for classroom instruction,
2. Implements effective teaching techniques,
3. Provides for individual differences,
4. Implements instructional objectives,
5. Demonstrates knowledge of subject matter,
6. Uses a variety of teaching materials,
7. Uses instructional time effectively,
8. Demonstrates ability to motivate students,
9. Demonstrates ability to communicate effectively with students, and
10. Provides students with specific valuative feedback.

After discussing the observations within small groups, each preservice administrator prepared a formal observation report for one preservice teacher. The

checklist of observed behaviors by the preservice teachers were explained by comments that included what was done well, what should be considered for change, and specific suggestions that could improve the lesson. Each observation report included personal messages to the preservice teacher to encourage continued development and to welcome him or her to the teaching profession. The observation reports, lesson plans, self-evaluation and peer comments were returned to the professor of the preservice teachers. After reading the observation reports, each preservice teacher was given 5 open-ended questions that sought reflective responses to the supervisory comments.

Instrumentation

During the first week of classes of the semester-long teaching methods course, preservice teachers in the esperimental and control groups (n = 101) were asked to respond a pretest of 12 questions about the process of learning to teach. The questions were developed from data collected in a pilot test that asked 42 preservice teachers open-ended questions about the effects that comments about their teaching had on learning to teach. For example a pilot test question was, "How did the specific comments about your teaching help you understand your own teaching practices?" The answer given most often to the sample question was: "these comments helped me identify my teaching strengths and weaknesses." From this, the revised question became: "How well do you know your specific teaching strengths and weaknesses?" The responses to these questions were recorded on a Likert scale where 1 was the lowest score and 5 was the highest (see Appendix for the questionnaire). During the last week of the semester both groups completed the posttests.

Data analysis

The data from the questionnaires were analyzed using t-tests to show significant differences between the means on the pretests and posttests of both groups. A second t-test was performed as a special one-way ANOVA to find significant differences between the variances of the experimental and control for each question. The folded form of the F statistic tests the hypothesis that the variances are equal. Within group comparisons using the t-test were conducted to measure variability due to different instructors within both the control and experimental groups. A content analysis was conducted on the responses to the 5 open-ended questions answered by the experimental group.

Results

The variability was not significant within the experimental and control groups, which confirmed that having different instructors in each group did not influence the responses of the groups. These data are not reported. The data gathered from the questionnaires are reported in two tables. Table 1 (see Appendix) displays the means by question of the pretests and posttests for both groups from the short answer questions about learning to teach. The amounts of equality of the mean differences calculated for each question are included in Table 1 as Prob > F'. The variances that are significantly different are marked (*).

Significant differences between responses of the experimental and control groups were found for three questions (4, 5, 9). Question 4 shows a variance between groups where $F' = 2.30$ and $p = .003$. Surprisingly, the mean difference of the control group is

greater than the mean difference of the experimental group. The experimental group is significantly different for question 5 where $F' = 1.97$, $p = .02$ and question 9 where $F' = 2.05$, $p = .01$. These responses show means for the experimental group greater than the control group.

The data from the responses ($n = 34$) to the 5 open-ended questions by frequency are shown in Table 2 (see Appendix). The totals for the responses to each question reflect the number of respondents who did not answer every question. These data were collected immediately after the preservice teachers in the experimental group read the observation report provided by the preservice administrators.

Discussion

The quantitative measure of the effect of the project on the preservice teachers' perceptions of learning to teach did not generally show a meaningful impact of the project. This could result from the project truly not having an effect or the questions not measuring the effect. The control group reported a greater change in perception of how much a teacher should change a lesson to meet the needs of the learners. The reason for this change is not understood at this time and discussion can only be speculation. Perhaps the preservice teachers in the experimental group were more concerned about the structure of their lessons and less concerned about the learners' needs because the feedback from the preservice administrators concentrated on the elements of the lesson.

The responses to question 5 strengthen this speculation because it is concerned with a specific element of the lesson--the clarity of the objective. The experimental group indicated significantly more importance to this question.

They also reported greater value for the evaluations by their peers in responses to question 9. This may be an effect of receiving feedback from the preservice administrators that agreed with the feedback from their peers about their teaching. Many of the questions that one would expect to show differences did not.

Limitations of the Study

The initial attempt to gather quantitative data illuminated the need to develop a more reliable questionnaire for the pretest and posttest. The questions asked the preservice teachers to speculate on the importance of these concepts rather than measuring their perceptions following their experiences of micro-teaching. Perhaps real change in perceptions can not be detected using quantitative measures. Because the feedback occurred only once, it may not have influenced the preservice teachers amply to measure their perceptions quantitatively.

Some effects of the project on the preservice teachers' perceptions of learning to teach were found in the responses to the open-ended questions completed by the experimental group. The most often mentioned themes found in the responses were:

1. The positive comments reinforced the preservice teachers' strengths, encouraged them and increased their confidence in their teaching.
2. The respondents found the comments valuable in learning to teach.
3. The preservice teachers felt that they could improve their teaching by using the feedback to reflect on their teaching.

When the preservice teachers read the specific feedback on their microteaching, they had an opportunity to reflected again on the teaching practices they used in their

first micro-teaching lesson. Through this feedback and reflection they understood what they did well and learned ways that they could improve their lesson presentations. The comments from the preservice administrators were valuable to them for identifying their teaching strengths and methods for improving their lessons. Because their strengths were documented by the preservice administrators, they reported that their perceptions of their abilities to teach and to learn to teach increased. They found the comments closely matched their own observations of the lesson and thus increased their confidence in teaching. They reported changes in their perceptions about learning to teach: it involves much preparation, can be learned over time, and has definite processes that need to be mastered. The preservice teachers also saw the supervision process as assisting teachers to improve their teaching practices. This experience demonstrated that experienced teachers can provide helpful suggestions for teaching, and supervision can provide the means for continued professional growth.

Conclusions

The preservice teachers reflected on their specific lesson when they read the comments made by the preservice administrators. They also reflected on the process of learning to teach when they responded to the open-ended questions about the comments that were made about their lesson. Through the comments from the administrators the preservice teachers reported an increase in their confidence to teach and in their ability to learn to teach well. They recognized areas that needed improvement, but also saw that they had done many things well. Many commented that the feedback helped them to focus on what they had done well rather than on the mistakes they had made. They

reported that this added confidence motivated them to continue to develop as teachers. Positive comments and suggestions for improvement should be used to aid the development of their abilities to teach early in the education program rather than waiting for student teaching.

Exchanging comments with the preservice administrators provided a positive experience in being evaluated for professional development. Many of the preservice teachers now see supervision as a means for improving their teaching practices. They know that they can benefit from a process that provides them specific feedback about their teaching.

This collaborative project allowed students of education to help each other in a very unusual way. Both collaborative groups described the project as being very beneficial to their learning. University instruction can be more effective in preparing preservice teachers by professors working collaboratively on such projects. Specific feedback about the micro-teaching lessons could be utilized in preservice teacher education programs to promote teacher reflection in early methods courses especially when a fully operational teaching laboratory is not available.

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Appendix

Pre-Service Teacher Questionnaire

Group _____ Birth Date _____

Please indicate your honest judgment of the following questions by circling the number of the most appropriate response.

1. How well do you know your specific teaching strengths and weaknesses?
Not well 1 2 3 4 5 Very well

2. How important is a well-developed lesson plan for successful teaching?
Not 1 2 3 4 5 Very important

3. How important is it for teachers to review the effectiveness of their lesson plans?
Not 1 2 3 4 5 Very important

4. How much should a teacher change the lesson plan in response to the learners reactions?
Not much 1 2 3 4 5 Very Much

5. How important is the clarity of the lesson objective to the success of the lesson?
Not 1 2 3 4 5 Very important

6. How difficult is it for a teacher to make changes in a lesson plan during the teaching of that lesson?
Not 1 2 3 4 5 Very difficult

7. How well do you think you can teach? Not well 1 2 3 4 5 Very Well

8. How confident are you about your abilities to learn to teach well? Not 1 2 3 4 5 Very confident

9. How valuable are evaluations of your teaching by your peers? Not 1 2 3 4 5 Very valuable

10. How valuable would it be for you to evaluate your lesson by watching a video tape of your teaching?
Not 1 2 3 4 5 Very valuable

11. How helpful are evaluations of teachers by a principal for developing teaching skills?
Not 1 2 3 4 5 Very helpful

12. How helpful would it be to have an experienced teacher watch your video tape and give you suggestions for improving your lesson?
Not 1 2 3 4 5 Very helpful

Table 1 Means and T Test for Experimental and Control Groups

Question	N	Group	Means: Pretest	Means: Posttest	Difference	F'	Prob > F'
1	60	Exper	3.25	3.93	0.68	1.59	0.10
	41	Control	3.51	3.85	0.34		
2	60	Exper	4.31	4.66	0.35	1.16	0.63
	41	Control	4.46	4.58	0.12		
3	60	Exper	4.51	4.87	0.35	1.44	0.22
	41	Control	4.53	4.76	0.21		
4	60	Exper	4.15	4.18	0.03	2.30	0.003**
	40	Control	4.05	4.24	0.20		
5	60	Exper	4.14	4.67	0.25	1.97	0.02*
	41	Control	4.49	4.63	0.14		
6	59	Exper	2.80	3.13	0.34	1.08	0.81
	41	Control	2.66	2.63	-0.03		
7	59	Exper	3.78	4.08	0.29	1.33	0.31
	40	Control	4.07	4.20	0.10		
8	60	Exper	4.38	4.63	0.25	1.30	0.39
	40	Control	4.65	4.65	0.00		
9	60	Exper	4.21	4.33	0.12	2.05	0.01*
	41	Control	4.19	4.19	0.00		
10	60	Exper	4.47	4.60	0.13	1.47	0.18
	41	Control	4.29	4.21	-0.08		
11	59	Exper	3.90	4.20	0.29	1.11	0.72
	40	Control	3.83	3.90	0.07		
12	60	Exper	4.71	4.71	0.00	1.42	0.22
	41	Control	4.43	4.56	0.12		

*p<.05 **p<.01

Table 2 Preservice Teachers' Responses to the Preservice Administrators' Comments

n = 34*

1. How did the specific comments about your teaching help you understand your own teaching practices?

frequency	responses
15	Positive comments reinforced my strengths
7	Comments provided new information or perceptions about my teaching
5	Comments more positive than my perceptions of my teaching encouraged me

2. How closely did the comments in the observation form address the most important concerns that you had about your lesson or your teaching?

frequency	responses
23	Very close
6	Not very close
4	Somewhat close

3. How have your perceptions of teaching changed through the process of this project?

frequency	responses
12	Teaching involves much preparation
7	Increased my confidence in teaching
6	I learned I can improve my teaching over time
5	I understand more about teaching

4. What were the most beneficial aspects of this feedback from future administrators?

frequency	responses
20	Positive comments gave me confidence in my teaching
10	Having opinions about my teaching from experienced teachers
3	Prepared me for interviewing with principals
1	Felt welcome to the profession of teaching

5. How has the experience of this project helped you understand professional development?

frequency	responses
16	Honestly looking at your teaching can promote improvement
12	Teachers can continue to learn
2	Increased my confidence in my teaching
2	Feel more comfortable with professional development

*Note: Not all responses total 34 because some questions were not answered by all respondents

Evaluation of Mini-Teaching Feedback

Please answer the following questions as candidly as possible. Your answers will allow the professors to modify the process to meet the needs of future students and provide feedback to the pre-service administrator who observed your lesson about the written evaluation of your lesson.

Code of the Pre-service Administrator _____

1. How did the specific comments about your teaching help you understand your own teaching practices?

2. How closely did the comments in the observation form address the most important concerns that you had about your lesson or your teaching?

3. How have your perceptions of teaching changed through the process of this project?

4. What were the most beneficial aspects of this feedback from future administrators?

5. How has the experience of this project helped you understand professional development?